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Preface

Optoelectronic information processing concerns a wide range of optoelectronic systems, scientific topics, technologies, and algorithms. It is aimed to provide solutions with high performance for difficult tasks such as very high data transmission rate systems, very high density data storage, pattern recognition, security, and many other applications.

The applications of optoelectronic systems for optical fiber transmission and optical data storage are recent and practical examples of the efficient commercial success of optoelectronics. On the other hand, the critical components for the interface between optics and electronics constitute a real challenge for these new applications.

The goal of the workshop and of this book is to present and discuss recent progress in both fundamental and practical areas in this domain. It also allows one to analyze the relevant directions of research and near- to medium-term developments.

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